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(वॉ पैटर्न) — विशिष्टि

(पहला पुनरीक्षण)

Forceps, Tonsil Dissecting
(Waugh's Pattern) —
Specification
(First Revision)

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

मानक भवन, 9 बहादुरशाह ज़फ़र मार्ग, नई दिल्ली-110002

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG

NEW DELHI-110002

www.bis.org.in www.standardsbis.in

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Ear, Nose and Throat Surgery Instruments Sectional Committee had been approved by the Medical Equipment and Hospital Planning Division Council.

This standard was first published in 1968. The revision of this standard has been taken up to update it with development taken place in the field. All the amendments issued so far have been incorporated in this revision.

Although other types of tonsil-dissecting forceps are available commercially, Waugh's pattern is widely popular and has been covered by this standard.

This standard is one of a series of Indian Standards on tonsil forceps. This standard has been prepared based on indigenous manufacturers' data/practices prevalent in the field in India.

This standard requires reference to IS 3642 (Part 1) : 1990 'Surgical instruments — Specification : Part 1 Non-cutting articulated instruments (*second revision*)', whose provisions, subject to the limitations specified herein, are applicable.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

**FORCEPS, TONSIL DISSECTING
(WAUGH'S PATTERN) — SPECIFICATION**

(First Revision)

1 SCOPE

This standard covers the requirements for tonsil-dissecting forceps (Waugh's pattern), toothed, toothed with serrations, and serrated.

2 REFERENCES

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

<i>IS No.</i>	<i>Title</i>
1501 (Part 1) : 2013	Metallic materials — Vickers hardness test: Part 1 Test method (<i>fourth revision</i>)
1570 (Part 5) : 1985	Schedules for wrought steels: Part 5 Stainless and heat-resisting steels (<i>second revision</i>)
3642 (Part 1) : 1990	Surgical instruments — Specification: Part 1 Non-cutting, articulated instruments (<i>second revision</i>)
7531 : 1990	Surgical instruments — Corrosion resistance of stainless steel surgical instruments — Methods of tests (<i>first revision</i>)

3 MATERIAL

3.1 Arms of the forceps shall be made from stainless steel conforming to Designation 30Cr13 of IS 1570 (Part 5).

3.2 Rivets, guide-pin and check-pin, if used, shall be made of the same material as used for the instrument at **3.1**.

4 SHAPE AND DIMENSIONS

4.1 The shape and dimensions of the forceps (toothed) shall be as given in Fig. 1. The forceps (toothed and serrated) shall be as given in Fig. 1 except that the serrations shall be in accordance with Fig. 1A. Forceps (serrated) shall be in accordance with Fig. 1 except that

its tips shall be (serrated) only in accordance with Fig. 1A.

4.2 Tolerances on dimensions where not specified shall conform to IS 3642 (Part 1).

4.3 The joint shall conform to **13.1** of Section 3 of IS 3642 (Part 1).

4.3 The toothed end shall comply with Section 5 of IS 3642 (Part 1). The teeth shall conform to the dimensions specified in Fig. 1 and the combination used shall be 1 in 2 teeth.

4.4 The serrations shall be of diamond pattern conforming to **12** of Section 2 of IS 3642 (Part 1) and shall be as given in Fig. 1A.

5 WORKMANSHIP AND FINISH

The arms of the forceps shall be symmetrical, balanced and shall open and close with even movement. The teeth shall be sharp, clean and bright, and shall so match as to register properly without overriding, sticking or locking. The registration shall correspond with the registration of guide-pin with guide hole when provided. The arm shall be free from scales, burrs, pits, seams and other surface defects. The forceps shall be passivated and polished bright. All edges of the forceps shall be smooth and even and shall not be sharp. The faces of the arms shall be highly polished. The serrations shall be clear and clean.

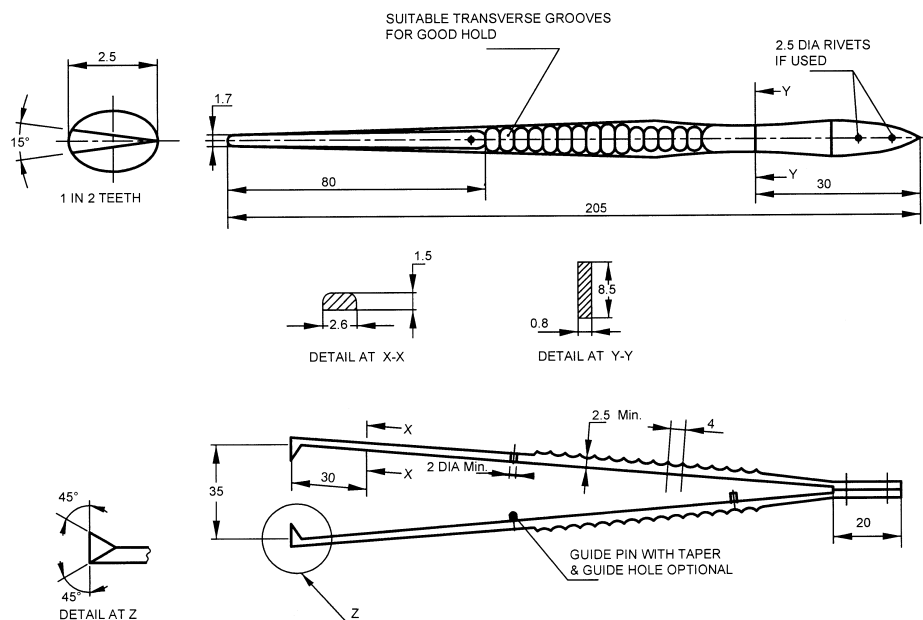
6 HEAT TREATMENT

The forceps shall be suitably hardened and tempered to give a uniform hardness of 430 to 490 HV of the finished instrument when tested in accordance with IS 1501 (Part 1).

7 TESTS**7.1 Flexibility**

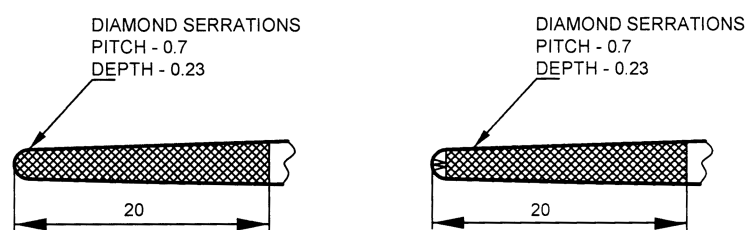
The flexibility of the arms of the forceps shall be tested in the following manner:

The arms of the forceps after maximum closure by manual compression shall not take a permanent set and the teeth shall continue to engage and disengage accurately without sticking.



All dimensions in millimetres.

FIG. 1 DISSECTING FORCEPS, TOOTHED WAUGH'S PATTERN



All dimensions in millimetres.

FIG. 1A ALTERNATE SHAPE OF JAWS

7.2 The joint end of the forceps shall be fixed in a vice so that the riveted or welded joint, or parallel portion of the folded joint, is gripped firmly. In the case of forceps with folded joint, the joint shall be tightly interleaved with an aluminium strip before fixing the forceps in the vice so that deformation of the joint is avoided. By the application of force at the tip of the arm, one arm of the forceps shall be deflected in a plane at right angles to the plane of the arm by a distance of 50 mm measured at the tip of the forceps. On release of the force, no permanent set shall be observed. The test shall be repeated on the other arm.

7.3 Load Closure

The teeth of the forceps shall just close when a load of 170 ± 10 g be applied at the first finger groove from the tip.

7.4 Performance

A latex sheet 0.05 mm thick shall be stretched over the tip of one of the fingers and then gripped lightly by the teeth of the forceps. The forceps shall hold the latex sheet firmly without any tendency to slipping as judged when pulled through a distance of 5 mm. When the arms of the forceps are pressed further, the latex sheet shall puncture neatly and after puncturing the teeth, shall tear the latex sheet when the forceps is pulled, in the direction of the pull.

7.5 Corrosion Resistance

The instrument shall satisfy the boiling and autoclaving test as specified in IS 7531.

8 MARKING

8.1 Each forceps shall be clearly and indelibly marked

with the manufacturer's name, initials or trade-mark and letters 'SS'.

8.2 BIS Certification Marking

The forceps may also be marked with the Standard Mark.

8.2.1 The use of the Standard Mark is governed by the provisions of *Bureau of Indian Standards Act, 2016* and the Rules and Regulations made thereunder. The details of conditions under which the licence for the

use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

9 PACKING

The forceps shall be wrapped individually in moisture-proof paper or polyethylene bag, taking care to see that the teeth are well protected. They shall be packed in a manner that coming into contact with each other is avoided.

Bureau of Indian Standards

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Amendments Issued Since Publication

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BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002

Telephones : 2323 0131, 2323 3375, 2323 9402 Website: www.bis.org.in

Regional Offices:

	Telephones
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 2323 7617 2323 3841
Eastern : 1/14 C.I.T. Scheme VII M, V. I. P. Road, Kankurgachi KOLKATA 700054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
Northern : Plot No. 4-A, Sector 27-B, Madhya Marg, CHANDIGARH 160019	{ 26 50206 265 0290
Southern : C.I.T. Campus, IV Cross Road, CHENNAI 600113	{ 2254 1216, 2254 1442 2254 2519, 2254 2315
Western : Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	{ 2832 9295, 2832 7858 2832 7891, 2832 7892

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